

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENVIRONMENTAL ANALYSIS, MS 27

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June 6, 2006

Ms. Lori Webber  
California Regional Water Quality Control Board  
Central Valley Region  
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Rancho Cordova, CA 95670

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RE: Amendments to the Water Quality Control Plan for the Sacramento River and  
San Joaquin River Basins for the Control of Nutrients in Clear Lake

Dear Ms. Webber:

The California Department of Transportation (Department) has reviewed your April 2006 staff report regarding proposed Basin Plan Amendments (BPAs) for the control of nutrients in Clear Lake. The Department strongly supports efforts to protect the environment and to achieve the best-possible water quality and offers the following comments:

- *Recent Improvements in Water Clarity:* According to data gathered over the past 15 years, water clarity in the lake has significantly improved. Therefore, this TMDL may not be necessary.
- *Monitoring Responsibility and Funding:* The Total Maximum Daily Load (TMDL), as currently written, does not clearly specify who will conduct the monitoring or how it will be funded.

- Appropriateness of the Chlorophyll-a Target: Chlorophyll-a may not be the appropriate indicator of the lake's health. Monitoring conducted by the Department of Water Resources shows that, in recent years, chlorophyll-a levels remained high, even though the lake clarity significantly improved. Our perspective is that the main source of water quality contamination in Clear Lake is invasive non-native plants and not the algae blooms considered in the TMDL.
- Internal vs. External Loading: The clarity of the lake largely depends on existing phosphorus in the lake bottom and washout over time. The relative importance of internal vs. external loading should be studied further. Residence time of phosphorus in the lake should be evaluated to better estimate how using external load reduction could potentially reduce the amount of algal blooms in the lake. Furthermore, the implementation plan should clearly specify how allocation requirements would change as clarity of the lake improves.
- Limiting Nutrients: The roles of nitrogen and iron in the occurrence of blue-green algal blooms in the lake are unclear at this time, but should be considered as part of the management practice implementation.
- Sediment vs. Nutrient Focus: The TMDL implementation focuses on reducing sediment loads to the lake. Although most sediment-controlling BMPs will decrease nutrient loading, it may be helpful to clarify the extent of nutrient reduction that can be expected.
- Caltrans Load Allocation: Allocations to point source dischargers are loosely based on relative land area rather than potential sediment contribution to the lake and current efforts to control sediments. Estimates of the potential phosphorus loading from Department roadway varies from 289 kg to 1038 kg per year. These estimates assume that all runoff enters the lake directly and are overly conservative. As such, limiting the Department's waste load allocation (WLA) to 100 kg/year could require reducing phosphorous loads by 65%–95%. Such reduction requirements are technically and economically infeasible and would have a significant impact on roadway operations and maintenance. Regional efforts to control sediments and phosphorus loading may be more beneficial than implementing individual BMPs. With the increased development in the region, opportunities for coordination will increase. The TMDL should provide a formal process by which point source

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and non-point source dischargers may trade pollutant credits for BMP implementation. For example, allowing the Department to fund a wetland outside of its right-of-way could be more economically feasible than site-specific BMPs, and more effective in reducing phosphorus loading to the lake.

We appreciate this opportunity to comment on the proposed BPAs. If you have any questions, please contact Ivan Karnezis at (916) 653-5417.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Flake". The signature is fluid and cursive, with the first name "Michael" and last name "Flake" clearly distinguishable.

MICHAEL FLAKE  
Chief  
Office of Storm Water Policy